

Course Description

Prerequisite: Eligibility for MATH 1021. Earth materials and land forms; processes at work on and within the earth.

Course Objectives

Students will:

1. Understand the Earth is a dynamic integrated system.
2. Understand the forces and processes that have and continue to act upon and within the Earth.
3. Understand the inter-relationships of processes, forces and events that affect the Earth.
4. Understand the observational techniques and reasoning processes that constitute the discipline of geology.

Procedures to Evaluate these Objectives

1. In-class problems after concept presentation
2. In-class exams
3. Cumulative final exam

Use of Results of Evaluation to Improve the Course

1. Student responses from in-class problems will be used to provide immediate feedback to students on concept misunderstanding.
2. In-class exams will be graded and returned with written evaluations to provide improved understanding of student difficulties in understanding.
3. The cumulative final exam will be graded and examined to determine areas of teaching which could use improvement.
4. All evaluation methods will be constantly monitored to determine if there is a more effective method of presenting the material.

Detailed Topical Outline

1. Introduction to Physical Geology
2. Atoms, Elements, and Minerals
3. Igneous Rocks
4. Volcanism and Extrusive Rocks
5. Weathering and Soil
6. Sedimentary Rocks
7. Metamorphic Rocks
8. Geologic Time
9. Mass Wasting
10. Running Water

11. Ground Water
12. Glaciers and Glaciation
13. Deserts and Winds
14. Shorelines
15. Geologic Structures
16. Earthquakes
17. Earth's Interior
18. The Ocean Floor
19. Plate Tectonics
20. Mountain Belts and Continents
21. Geologic Resources